BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Spectrum Task Force Requests Information on Frequency Bands Identified by NTIA as Potential Broadband Spectrum	)	ET Docket No. 10-123

To: Chiefs, Office of Engineering and Technology and Wireless Telecommunications Bureau

COMMENTS OF SOUTHERN COMPANY SERVICES, INC.

Southern Company Services, Inc. ("Southern"), on behalf of itself and its operating affiliates, hereby submits its comments in response to the Public Notice, DA 11-444, released March 8, 2011, seeking comment on several frequencies bands that have been identified by the National Telecommunications and Information Administration (NTIA) for reallocation for wireless broadband. As explained herein, Southern supports the allocation of additional spectrum for wireless broadband and urges the Commission to consider the needs of the nation's electric utilities to implement Smart Grid communications systems when developing plans for using or sharing Federal spectrum bands.

Southern Company Services, Inc., is a wholly-owned subsidiary service company of Southern Company, a super-regional energy company in the Southeast United States. Southern Company also owns four electric utility subsidiaries – Alabama Power Company, Georgia Power

Company, Gulf Power Company, and Mississippi Power Company – which provide retail and wholesale electric service throughout a 120,000 square mile service territory in Georgia, most of Alabama, and parts of Florida and Mississippi. Members of the Southern Company family use a variety of communications technologies, including FCC licensed radio spectrum, to support the safe and efficient delivery of energy services to their customers.

The Commission has invited comment on steps the Commission can take to best promote wireless broadband deployment in the 1695-1710 MHz and 3550-3650 MHz bands, as well as several additional bands that NTIA identified for potential deployment of wireless broadband, including the 1755-1850 MHz, 4200-4220 MHz and 4380-4400 MHz bands. The Commission has asked about the extent to which these bands could be made available for wireless broadband and about the impact of certain technical limitations on their usefulness for broadband deployment, including restrictions that would allow the bands to be shared with Federal users.

Southern supports the allocation of additional spectrum for wireless broadband, and urges the Commission to think expansively about broadband wireless as it develops plans to make more spectrum available for such purposes. Although it is convenient to think only of spectrum bands that might be viable for the provision of commercial broadband service to consumers, Southern and other electric utilities will need broadband wireless spectrum to implement Smart Grid systems in order to improve reliability of electric service to the American public, including electric service that is relied upon by the telecommunications industry. The Smart Grid systems for which utilities have the greatest need for dedicated spectrum are those that are used for high-priority, mission-critical communications essential to utility operations and the safe, reliable, and

efficient delivery of electric power to the public.[1] In the context of Smart Grid, this includes critical command and control applications such as load management, protective relaying, and supervisory control and data acquisition ("SCADA") systems.[2]

Each of the bands identified in the Public Notice is subject to certain incumbencies that could significantly limit the usefulness of the band for widespread deployment of commercial services. For example, NTIA has recommended that the FCC allocate the 1695-1710 MHz band for non-Federal mobile service, but establish exclusion zones around Federal earth stations that would effectively limit potential coverage to 87% of the U.S. population. Similarly, NTIA has recommended that non-Federal users be prohibited from operating in the 3550-3650 MHz band within up to 570 km from the U.S. coastline, and in additional exclusion zones around ten locations. However, these or similar bands that are occupied by government users might provide opportunities for electric utilities to deploy Smart Grid systems in electric service areas that are removed from the relevant exclusion zones.[3] Southern therefore recommends that any bands below 4 GHz that are reviewed for potential use in wireless broadband systems also be considered for allocation to and use in utility Smart Grid systems.

In his Presidential Memorandum calling upon the Secretary of Commerce to collaborate with the FCC to make available a total of 500 MHz of spectrum for mobile and fixed wireless

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[1] For a description of Smart Grid technologies and benefits, see *Communications Requirements of Smart Grid Technologies*, US Department of Energy, Oct. 5, 2010.

[2] These systems are distinguished from automatic metering systems that can often be used in connection with commercial telecommunications services where low latency or high levels of availability are not critical factors.

[3] Southern recommends that the Commission give particular attention to the 1800-1830 MHz band as one of several bands that could be used by utilities for Smart Grid applications. This band is already reserved in Canada for utility purposes, making it an ideal option for use in the U.S. in order to take advantage of economies of scale in equipment production. For the decision, see http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09174.html; and for the background on this issue, see http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08972.html

broadband use over the next 10 years, President Obama noted the many ways in which the greater availability of wireless broadband can help achieve important national goals.[4] He noted that additional spectrum will support a variety of networks and applications if otherwise underutilized spectrum is opened to new technologies. Significantly, the President did not limit the shared use of these new spectrum resources to commercial carriers, instead noting that they could be used for either licensed or unlicensed wireless broadband technologies, adding that:

> This new era in global technology leadership will only happen if there is adequate spectrum available to support the forthcoming myriad of wireless devices, networks, and applications that can drive the new economy. To do so, we can use our American ingenuity to wring abundance from scarcity, by finding ways to use spectrum more efficiently. We can also unlock the value of otherwise underutilized spectrum and open new avenues for spectrum users to derive value through the development of advanced, situation-aware spectrum-sharing technologies.[5]

Southern agrees with these sentiments, and encourages the Commission to think expansively in making this spectrum available for use by electric utilities to fulfill the national goals of energy efficiency, energy independence, and improved electric reliability through deployment of Smart Grid technologies.

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[4] Presidential Memorandum: Unleashing the Wireless Broadband Revolution, dated June 28, 2010, available at http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution

[5] *Id.*

WHEREFORE, THE PREMISES CONSIDERED, Southern Company Services, Inc. respectfully requests the Commission to take action in this proceeding consistent with the views expressed herein.

Respectfully submitted,

SOUTHERN COMPANY SERVICES, INC.

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Dated: April 22, 2011